

PRACTICE EXERCISES

Find the distance between the points with the given coordinates.

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| 1. $(2, 7), (6, 7)$ | 2. $(3, 5), (7, 5)$ | 3. $(-3, -5), (2, -5)$ |
| 4. $(-4, -2), (-4, 3)$ | 5. $(3, 5), (3, -7)$ | 6. $(-6, -3), (-6, 0)$ |
| 7. $(2, -3), (5, -4)$ | 8. $(-2, -3), (5, -1)$ | 9. $(-1, 3), (5, 0)$ |

Find the coordinates of the midpoint of the segment with the given endpoints.

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| 10. $(3, 1), (1, 5)$ | 11. $(5, 2), (-1, -2)$ | 12. $(11, 3), (1, 5)$ |
| 13. $(-5, 2), (-5, 8)$ | 14. $(6, 4), (-4, 4)$ | 15. $(0, 0), (-4, -6)$ |
| 16. $(8, 5), (12, 0)$ | 17. $(0, 6), (-4, 13)$ | 18. $(0, 0), (10, -9)$ |
| 19. $(3, \frac{1}{2}), (5, \frac{1}{3})$ | 20. $(\frac{1}{4}, -2), (\frac{1}{5}, 4)$ | 21. $(\frac{1}{2}, \frac{1}{3}), (\frac{2}{3}, \frac{3}{4})$ |

Find the distance between the points with the given coordinates. Express all radicals in simplest form.

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| 22. $(15, -8), (17, 2)$ | 23. $(25, -3), (16, -9)$ |
| 24. $(6, -\sqrt{2}), (-2, -\sqrt{2})$ | 25. $(-3\sqrt{3}, \sqrt{5}), (4\sqrt{3}, \sqrt{5})$ |
| 26. $(\sqrt{6}, -1), (\sqrt{6}, 5)$ | 27. $(-3\sqrt{2}, 4), (-3\sqrt{2}, -5)$ |

If M is the midpoint of \overline{AB} , find the coordinates of B .

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| 28. $A(-3, 5), M(-6, -2)$ | 29. $A(-11, -9), M(6, -7)$ |
| 30. $A(3, -7), M(-\frac{2}{3}, 5)$ | 31. $A(-6, 9), M(6, -\frac{3}{4})$ |